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PREVENTION OPPORTUNITIES UNDER THE BIG SKY

Adult Medicaid Beneficiaries Successfully Participating in an Adapted Diabetes Prevention Program

The prevalence of type 2 diabetes has increased dramatically. The number of people diagnosed with diabetes increased from 1.5 million in 1958 to 18.8 million in 2010.[1] By the year 2050, one in three people are predicted to have diabetes.[2] In 2011, 8% of Montana adults had diagnosed diabetes and an estimated 30% were at high risk for developing type 2 diabetes.[3,4] The prevalence of obesity and diabetes (41%,16%) is significantly higher among adults aged 18 to 64 years enrolled in Medicaid than among adults of the same age in the general population in Montana (25%,5%).[5,6]

This issue of *Montana Public Health* describes the outcomes of Medicaid beneficiaries and non-Medicaid participants at high risk for type 2 diabetes and developing cardiovascular disease (CVD) enrolled in an adapted evidence-based lifestyle intervention program based on the National Institutes of Health's (NIH) Diabetes Prevention Program (DPP).[7]

The Intervention The Montana DPP is a 10-month intensive lifestyle intervention that provides 16 weekly core sessions followed by six monthly post-core sessions. It is based on the NIH DPP *Lifestyle Balance* curriculum. Sessions include healthy eating, physical activity, and problem solving.[8] The program is administered by lifestyle coaches who are trained health professionals (e.g., RD, RN, CDE, PT) and is currently being provided by 18 health care facilities. Participant program goals include self-monitoring dietary intake and physical activity, decreasing fat gram intake, increasing moderately intense physical activity to ≥150 min/week, and to achieve the 7% weight loss goal.

Recruitment Strategies and Reimbursement Participants are referred to CVD and Diabetes Prevention Program by health care providers, community groups, employers, paid and earned media, brochures, and word-of-mouth. Beginning 2012 Montana Medicaid included DPP as a covered benefit and the intervention sites are reimbursed for providing this service.

Participant Eligibility Criteria Participants must be aged 18 years or older, have a BMI ≥25.0 kg/m^2, and also have one or more of the following risk factors for CVD and type 2 diabetes:

- Diagnosis of prediabetes, IGT, or IFG
- A1C from 5.7% to 6.4%
- Blood pressure ≥130/85 mmHg or treatment for hypertension
- Dyslipidemia: triglycerides ≥150 mg/d, LDL cholesterol >130mg/dl or treatment for dyslipidemia, HDL cholesterol <40mg/dl for men or <50mg/dl for women
- History of gestational diabetes mellitus or gave birth to a baby >9 lbs.

Findings Of 983 adults enrolled in the Montana CVD and Diabetes Prevention Program in 2012 and 2013, 12% were Medicaid beneficiaries [Table]. The Medicaid cohort was on average 9.4 years younger and had a significantly higher baseline body mass index (BMI) compared to the non-Medicaid cohort. This Medicaid cohort attended slightly fewer core sessions and self-monitored fat intake for fewer weeks compared to the non-Medicaid cohort. The average weight loss over the 16-week core sessions was 3.0 kg and 5.4 kg in the Medicaid and non-Medicaid cohorts, respectively. Non-Medicaid participants were more likely to achieve the 7% weight loss goal (32%) compared to Medicaid participants (17%).

Table. Characteristics, program attendance, self-monitoring, and weight loss among Medicaid and non-Medicaid participants, Montana CVD and Diabetes Prevention Program, 2012-2013.

Measure	Medicaid (n=118)	Non-Medicaid (865)
	Mean (SD)	***Mean (SD)***
Age (years)	46.7 (12.9)	56.1 (11.7)*
Baseline BMI (kg/m^2)	40.2 (9.7)*	36.0 (7.3)
Number of weekly core sessions attended	11.2 (4.8)	12.2 (4.7)*
4 months weight change (kg)	3.0 (6.1)	5.4 (6.7)*
	% (n)	***% (n)***
Sex (female)	73.7 (87)	80.0 (691)
Achieved 5% weight loss	26.3 (31)	43.6 (377)*
Achieved 7% weight loss goal	17.0 (20)	32.3 (279)*
Self-monitoring fat intake ≥14 weeks	46.6 (55)	59.2 (512)*
Achieved 150 minutes/week of physical activity goal	58.5 (69)	46.9 (406)

*P-value ≤0.05

Public Health Implications The Diabetes Prevention Program in Montana is a structured evidence-based lifestyle behavior change program and is a highly effective method of reducing the risk of type 2 diabetes and CVD. Furthermore, the DPP lifestyle intervention for persons on Medicaid provides substantial health benefits and may also provide positive financial return on investment for Medicaid.

Conclusion The findings suggest that it is feasible to recruit and retain adult Medicaid beneficiaries into an adapted DPP, engage this population in adopting lifestyle change behaviors, and to achieve significant but somewhat lower weight loss compared to older non-Medicaid participants.

Recommendations for Healthcare Providers

- Assess your patients risk for type 2 diabetes.
  - Use A1C, OGTT, or fasting blood glucose test.
  - Consider other factors such as overweight/obesity, cardiometabolic risk factors, and a history of GDM.
- Encourage patients to take American Diabetes Association's Diabetes Risk Test, which provides a risk score, at http://www.diabetes.org/risktest
- Refer eligible patients including adult Medicaid beneficiaries to the Montana Cardiovascular Disease and Diabetes Prevention Program.
- See www.mtprevention.org to view locations, contact information, the medical clearance form, and resources to support the program.

For more information, contact Sarah Brokaw, Program Manager, Montana Diabetes Prevention Program, 406-444-9154.

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1400 Broadway
Helena, MT 59620-2951

Richard Opper, Director, DPHHS
Steven Helgerson, MD, MPH, State Med. Officer
Todd Harwell, MPH, Administrator, PHSD